

Table 1:

Physical properties of the alumina spheres

| Example                                   |   | 1     | 2     | 3     | 4     |
|---|---|-------|-------|-------|-------|
| Specific surface                          | (m <sup>2</sup> /g)                       | 197   | 198   | 195   | 201   |
| Total pore volume                         | (ml/g)                                    | 0.46  | 0.47  | 0.45  | 0.47  |
| Breaking strength                         | (N)                                       | n.o.  | 33    | 125   | 142   |
| Bulk density                              | (g/l)                                     | 764   | 748   | 752   | 743   |
| Diameter                                  | (μm)                                      | 394   | 772   | 1685  | 2077  |
| Deviation from average diameter           | (μm)                                      | 11    | 14    | 40    | 22    |
| Standard deviation                        | (%)                                       | 2.8   | 1.8   | 2.4   | 1.1   |
| Spheroidal shape                          |   |       |       |       |       |
| Average value of $d_{\max}/d_{\min}$      |   | 1.015 | 1.012 | 1.039 | 1.039 |
| Spheres of $d_{\max}/d_{\min} < 1.09$ (%) |   | 99    | 99    | 99    | 99    |
| Throughput                                | (kg of Al <sub>2</sub> O <sub>3</sub> /h) | 1.8   | 6.0   | 6.1   | 11.4  |

n.o. = not observed.